

**Georgia State University**  
**ScholarWorks @ Georgia State University**

---

Psychology Theses

Department of Psychology

---

Spring 5-9-2015

# Preparation for Bias as a Buffer Against the Effect of Racial Discrimination on Academic Attitudes of African American College Students

Dominique Thomas

Follow this and additional works at: [https://scholarworks.gsu.edu/psych\\_theses](https://scholarworks.gsu.edu/psych_theses)

---

## Recommended Citation

Thomas, Dominique, "Preparation for Bias as a Buffer Against the Effect of Racial Discrimination on Academic Attitudes of African American College Students." Thesis, Georgia State University, 2015.  
[https://scholarworks.gsu.edu/psych\\_theses/134](https://scholarworks.gsu.edu/psych_theses/134)

This Thesis is brought to you for free and open access by the Department of Psychology at ScholarWorks @ Georgia State University. It has been accepted for inclusion in Psychology Theses by an authorized administrator of ScholarWorks @ Georgia State University. For more information, please contact [scholarworks@gsu.edu](mailto:scholarworks@gsu.edu).

PREPARATION FOR BIAS AS A BUFFER AGAINST THE EFFECT OF RACIAL  
DISCRIMINATION ON ACADEMIC ATTITUDES OF AFRICAN AMERICAN COLLEGE  
STUDENTS

by

DOMINIQUE THOMAS

Under the Direction of Ciara Smalls Glover, Ph.D.

ABSTRACT

Racial inequalities in the education system are an issue that has yet to be adequately addressed. Given how discriminatory experiences adversely impact African American students, it is important to understand how their educational attitudes are impacted and ways that students can be protected from these harmful experiences. The study aims to answer six research questions: 1) How does racial discrimination predict African American college students' value placed in education? 2) How does racial discrimination predict African American college students' expectations for success? 3) How do preparation for bias messages predict the value they place in education? 4) How do preparation for bias messages predict African American college students' expectations for success? 5) Do preparation for bias messages buffer the effect of racial discrimination on value placed in education? 6) Do preparation for bias messages buffer the effect of racial discrimination on expectations for success?

INDEX WORDS: African Americans, Education, Educational value, Educational expectations, Racism, Racial socialization

PREPARATION FOR BIAS AS A BUFFER AGAINST THE EFFECT OF RACIAL  
DISCRIMINATION ON ACADEMIC ATTITUDES OF AFRICAN AMERICAN COLLEGE  
STUDENTS

by

DOMINIQUE THOMAS

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of

Master of Arts

in the College of Arts and Sciences

Georgia State University

2015

Copyright by  
Dominique Thomas  
2015

PREPARATION FOR BIAS AS A BUFFER AGAINST THE EFFECT OF RACIAL  
DISCRIMINATION ON ACADEMIC ATTITUDES OF AFRICAN AMERICAN COLLEGE  
STUDENTS

by

DOMINIQUE THOMAS

Committee Chair: Ciara Smalls Glover

Committee: Gabriel Kuperminc

Chris Henrich

Electronic Version Approved:

Office of Graduate Studies

College of Arts and Sciences

Georgia State University

May 2015

## **DEDICATION**

I wish to dedicate my thesis to my grandmother. I know she would be proud of and I wish that she would have been able to see me progress this far.

## ACKNOWLEDGEMENTS

I would like to acknowledge all of those who have helped me throughout this process. I would like to first thank my advisor and committee chair Ciara Smalls-Glover for all of her guidance and support along the way. I would also like to thank my committee member Gabe Kuperminc for his support and encouragement. I would like thank my committee member Chris Henrich for all of his helpful feedback and statistical expertise. Finally, I would like to thank all of my colleagues who read drafts of my thesis and helped me talk through my project over the last few months.

## TABLE OF CONTENTS

<b>ACKNOWLEDGEMENTS .....</b>	<b>v</b>
<b>LIST OF TABLES .....</b>	<b>ix</b>
<b>LIST OF FIGURES .....</b>	<b>x</b>
<b>1 INTRODUCTION .....</b>	<b>1</b>
<b>1.1 Educational Value and Educational Expectations .....</b>	<b>2</b>
<b>1.2 Racial Discrimination in Educational Settings.....</b>	<b>7</b>
<b>1.3 Racial Socialization .....</b>	<b>9</b>
<b>1.4 Preparation for Bias Racial Socialization Messages .....</b>	<b>10</b>
<i>1.4.1 Preparation for bias as a protective factor against racial discrimination ..</i>	<i>13</i>
<i>1.4.2 Preparation for bias and academic outcomes .....</i>	<i>15</i>
<b>1.5 Theoretical Framework .....</b>	<b>16</b>
<b>1.6 The Current Study .....</b>	<b>18</b>
<i>1.6.1 Research Question 1 .....</i>	<i>20</i>
<i>1.6.2 Research Question 2 .....</i>	<i>20</i>
<i>1.6.3 Research Question 3 .....</i>	<i>20</i>
<i>1.6.4 Research Question 4 .....</i>	<i>20</i>
<i>1.6.5 Research Question 5 .....</i>	<i>21</i>
<i>1.6.6 Research Question 6 .....</i>	<i>21</i>
<b>2 METHOD .....</b>	<b>22</b>



<b>2.1</b>	<b>Participants .....</b>	<b>22</b>
<b>2.2</b>	<b>Procedures.....</b>	<b>23</b>
<b>2.3</b>	<b>Measures .....</b>	<b>24</b>
<b>2.3.1</b>	<b><i>Covariates .....</i></b>	<b>24</b>
<b>2.3.2</b>	<b><i>Racial discrimination.....</i></b>	<b>24</b>
<b>2.3.3</b>	<b><i>Preparation for bias .....</i></b>	<b>25</b>
<b>2.3.4</b>	<b><i>Educational value .....</i></b>	<b>25</b>
<b>2.3.5</b>	<b><i>Educational expectations.....</i></b>	<b>26</b>
<b>2.4</b>	<b>Analytic Strategy .....</b>	<b>26</b>
<b>2.4.1</b>	<b><i>Educational value .....</i></b>	<b>30</b>
<b>2.4.2</b>	<b><i>Educational expectations.....</i></b>	<b>30</b>
<b>3</b>	<b>RESULTS .....</b>	<b>32</b>
<b>3.1</b>	<b>Preliminary Analyses .....</b>	<b>32</b>
<b>3.2</b>	<b>Main Effects of Racial Discrimination and Preparation for Bias.....</b>	<b>33</b>
<b>3.3</b>	<b>Interaction Effects .....</b>	<b>34</b>
<b>4</b>	<b>DISCUSSION.....</b>	<b>36</b>
<b>4.1</b>	<b>Racial Discrimination as a Main Effect.....</b>	<b>36</b>
<b>4.2</b>	<b>Preparation for Bias as a Main Effect.....</b>	<b>37</b>
<b>4.3</b>	<b>Interaction of Racial Discrimination and Preparation for Bias .....</b>	<b>40</b>
<b>4.4</b>	<b>Limitations and Future Directions .....</b>	<b>41</b>

<b>4.5 Significance and Contributions.....</b>	<b>43</b>
<b>REFERENCES.....</b>	<b>45</b>
<b>APPENDICES .....</b>	<b>52</b>
<b>Appendix A: Demographic Information.....</b>	<b>52</b>
<b>Appendix B: Perceived Importance of Schooling.....</b>	<b>53</b>
<b>Appendix C: Proactive Responses to Discrimination .....</b>	<b>54</b>
<b>Appendix D: Equal Treatment of the Races at College.....</b>	<b>55</b>
<b>Appendix E: Youth’s Perception of the Value of Education.....</b>	<b>56</b>
<b>Appendix F: Youth’s Expectation to Perform Well Academically.....</b>	<b>57</b>

**LIST OF TABLES**

Table 1 Study Variables by Wave of Data Collection .....	25
Table 2 Intercorrelations of Study Variables .....	33
Table 3 Model with Main Effects of Racial Discrimination and Preparation for Bias.....	34
Table 4 Model with Conditional Effects and Interaction Effect of Racial Discrimination and Preparation for Bias .....	35

**LIST OF FIGURES**

Figure 1 Consort diagram for attrition and retention of participants .....	23
Figure 2 Missing value patterns .....	28
Figure 3 Frequency of missing value patterns .....	29

## 1 INTRODUCTION

Racial inequalities in the education system are an issue that has yet to be adequately addressed. African American students are not provided the same opportunities as their White counterparts in education. For example, they are more likely to have less qualified and experienced teachers and are more likely to receive inadequate funding at their schools (Condrón & Roscigno, 2003; Flores, 2007). Whether it is high school or college, African American students report unfair treatment from teachers and administrators at their schools (Howard, 2003; Solorzano, Ceja, & Yosso, 2000). Scholars have attributed these various inequalities to the widely documented achievement gap between African American students and White students (Schott, 2010; Teale, Paciga, & Hoffman, 2007; Yeung & Conley, 2008). Racial discrimination can be a contributing factor to these inequalities and the achievement gap.

Racial discrimination experiences continue to be a problem in college because they can have negative effects on mental health such as psychological stress (Bynum, Burton, & Best, 2007). Being in such a negative environment can have a negative impact on the persistence of African American college students (Solorzano et al., 2000). Scholars have found that perceptions of the college environment significantly predict the persistence of college students such that negative views of the environment predict less persistence (Johnson, Wasserman, Yildirim, & Yonai, 2014; Rigali-Oiler & Kurpuis, 2013; Wei, Ku, & Liao, 2011). It is also important to understand how these experiences impact their attitudes toward education, specifically educational value and expectations. Educational value refers to the significance and usefulness students believe their education will offer. Educational expectations refer to the students' expectations around academic performance. These attitudes have an impact on future academic and financial success (Lee, Hill, & Hawkins, 2012). These attitudes can also play a

role in whether African American students persist through college. Furthermore, it is also important to identify factors that may protect students from experiences that negatively impact their attitudes toward education. African American parents have the additional responsibility of preparing their children for these types of experiences. This practice is known as racial socialization.

More specifically, parents can warn their children of these negative experiences and provide them with strategies for handling these situations when they occur. One common racial socialization message is preparation for bias. Preparation for bias racial socialization messages have been shown to be related to several positive outcomes such as lower psychological distress and higher self-esteem among African American youth and young adults (Bynum, Best, & Burton, 2007; Harris-Britt, Valrie, Kurtz-Costes, & Rowley, 2007). This preparation has applicability to everyday situations across multiple contexts, but also to educational settings. This study aims to examine how parental preparation for bias can protect African American students from the harmful effects racial discrimination has on their attitudes toward education.

### **1.1 Educational Value and Educational Expectations**

Educational value and educational expectations are two important motivational constructs in the academic context that are related to achievement and success. According to Eccles' (Eccles et al., 1983; Wigfield & Eccles, 2000) expectancy-value theory of achievement motivation, expectations and the value placed in a particular task directly influence performance, persistence, and effort in school. In the model, expectations and value are theorized to be separate concepts as they can have differing impacts on different academic outcomes and attitudes. Educational expectations refer to an individual's beliefs about his or her own performance on a task, either immediately or in the long term. These are distinct from ability

beliefs, which refer to beliefs based on present capabilities. An individual's educational expectations can be impacted by others' expectations of them. For African Americans, this is particularly important given that forms of discrimination within the educational setting include unwarranted low expectations from teachers (Howard, 2003; Solorzano et al., 2000). There is a distinction made between different types of value, specifically attainment value, intrinsic value, cost, and utility value. Utility value refers to the fit of a particular task into future plans and closely aligns to the way in which educational value is being examined in the proposed study. This type of value involves extrinsic reasons for education, particularly for future gain. Past experiences can affect the value placed in education (Eccles et al., 1983). Experiences such as unfair treatment from teachers and administrators because of race can lead African American students to see less value in their education because of the association with negative experiences.

Throughout adolescence, individuals' expectations and value decrease over time. This is likely due to the change of environment in school, which could foster a more evaluative and competitive setting among students. Furthermore, when previous performance is accounted for, educational expectations are strong predictors of academic performance and value placed in education is a stronger predictor for persistence. Given their theorized importance for achievement behaviors, these two constructs have been examined in various studies (Lee et al., 2012; O'Hara et al., 2012; Wood, Kurtz-Costes, & Copping 2011).

The way in which educational expectations and educational value have been examined and operationalized has been consistent across studies and with how they have been defined in expectancy-value theory. Studies that have examined educational expectations have typically assessed how far students expected to go in school with college or graduate school being the highest expected achievement level (Lee et al., 2012; O'Hara et al., 2012; Wood et al., 2011).

For value, students are typically asked how important school is for helping them in future endeavors (Eccles, Wong, & Peck, 2006; Harris, 2008; Wood, Kurtz-Costes, & Copping, 2011). For these studies, however, expectations and value were measured in high school and used as predictors of persistence through high school and enrollment into college. For the proposed study, expectations and value are measured in college and will be used as outcomes. Because these constructs are assessed in college, the measures that will be used will assess their expectations for their academic performance in college and the value that they placed in their college education. While expectancy-value theory (Eccles et al., 1983; Wigfield & Eccles, 2000) provided a framework to understanding how these constructs work, it is important to understand why educational expectations and the value placed in education are important factors for academic success.

Research has suggested that educational expectations predict future success and persistence. For example, Lee, Hill, and Hawkins (2012) conducted a longitudinal study to examine how well educational expectations explained future financial and educational success. Four profiles (stable high, decreaser, low-stable, and increaser) were created based on the trajectory of expectations. The stable high group (66.8%) had consistently high expectations. Participants in the decreaser group (15.6%) started with high expectations, which decreased over time. In the low-stable group (8.8%), participants consistently had low expectations. Participants in the increaser group (8.8%) started with low expectations, which increased over time. Results showed that individuals from low-income families were significantly less likely to have consistently high expectations and were more likely to have consistently low or decreasing expectations. Family income emerged as a factor that needs to be considered when examining educational expectations. Participants in the stable high group had the best chance of graduating



from high school and earning the highest income in adulthood, followed by the increaser group. The findings are consistent with the expectancy-value theory such that expectations influence persistence. These findings also illustrate the importance of increasing expectations and maintaining high expectations due to their relationship with future academic and financial success.

Similar to expectations for success, the value students place in their education is also crucial to academic success and persistence. Wood, Kurtz-Costes, and Copping (2011) examined how postsecondary educational progress (having completed a year of college after a year out of high school) was related to student motivational beliefs for African Americans. This study found that girls reported higher expectations than boys. Furthermore, educational expectations and educational value predicted progress for boys. These gender differences suggest the importance of considering gender when assessing educational expectations and educational value. This study also found differences in educational expectations and educational value according to parental education level. Higher parental education attainment was associated with higher expectations and more value placed in education for students. This suggested that parent education is also an important factor for expectations and value. Taken together, the research by Lee et al. (2012) and Wood et al. (2011), demonstrated the importance of expectations and value for future persistence. While educational expectations and educational value have been demonstrated as important factors, it is especially important for African American college students.

African Americans are less likely than White Americans to receive a postsecondary degree; thus it is critical to examine factors that can facilitate academic success for African Americans (Aud, Fox, & Kewal Ramani 2007). Research has suggested that educational

expectations and educational value are particularly important for the academic performance of African American college students. In a longitudinal study of African Americans, students who were in a 4-year college or had graduated from a 4-year college by the age of 22 were more likely to have expectations that remained high from high school through college (Alexander, Bozick, & Entwisle, 2008). These findings are consistent with previous literature examining changes in expectations as they relate to academic progress and persistence (Lee et al., 2012). Another study by DeFreitas (2012) found that expectations more strongly predicted GPA for African Americans college students than for European American college students, further illustrating the utility of examining educational expectations of African American college students.

The value that African American college students place in their education is also important to examine. Due to inequities such as the fact that African Americans between the ages of 18 and 34 have the same employment rates as European Americans who have earned two fewer educational levels (O'Sullivan, Mugglestone, & Allison, 2014), it is important to assess how much African Americans' place value in their education. Caldwell and Obasi (2010) found that educational value was positively related to GPA in African American college students. Additionally, they found that cultural mistrust was negatively related to educational value. Ogbu and Simons (1998), as earlier stated, posited that such mistrust may stem from experiences of racial discrimination. These findings in conjunction with Ogbu and Simon's (1998) theory suggest that racial discrimination may cause mistrust in the dominant culture that in turn leads to African American college students placing less value in education. Given how previous research has illustrated the importance of both educational expectations and educational value for African American college students' academic performance and how factors such as racial discrimination

can negatively affect these attitudes, it is vital to identify frameworks that can help explain the process through which parents can protect their children's academic attitudes from the effects of racial discrimination.

## **1.2 Racial Discrimination in Educational Settings**

Students can develop negative attitudes toward education if they experience discrimination in the school context. Howard (2003) conducted a series of interviews with African American high school students in which they reported antagonistic attitudes from teachers and administrators that lowered their motivation in school. Some students mentioned that they were discouraged from taking Advanced Placement classes because of the difficulty and they believed that they did not have an opportunity to display their intelligence and knowledge. Consistent with Mickelson (1990), as well as Ogbu and Simons (1998), such systemic experiences can cause African American students to develop negative attitudes toward education.

Consistent with the experiences with racial discrimination students discussed in Howard's (2003) study, Neblett, Philip, Cogburn, and Sellers (2006) found that racial discrimination experiences were related to less academic curiosity and less academic persistence in African American adolescents. Similarly, Wang and Huguley (2012) found that teacher discrimination was negatively related to educational aspirations, school identification, and cognitive engagement in African American high school students over time. Furthermore, peer discrimination was related to lower school identification. Eccles et al. (2006) found that both peer and teacher discrimination were related to less value placed in education, lower self-concept of ability, and lower academic achievement. Racial discrimination has also been demonstrated as a barrier to African Americans enrolling in college. O'Hara et al. (2012) found that racial

discrimination experienced in the 5<sup>th</sup> grade predicted a lower likelihood of enrolling into college. Also, this relationship was explained by a decrease in expectations as a result of racial discrimination (O'Hara et al., 2012). Similarly, Wood et al. (2011) found that for African American girls, more racial discrimination was related to lower educational expectations. For African American boys, more racial discrimination was related to them placing less value in education. Additionally, for African American boys who perceived more racial discrimination, they placed less value in education, which decreased their chances making educational progress on time. Unfortunately, even if students make it to college, these issues continue to persist.

Research has suggested that racial discrimination also has a negative impact on academic attitudes in college. Reynolds, Sneva, and Beehler's study (2010) explored how the unique experiences that Black and Latino students have with racism can adversely affect them academically and psychologically. Racism was found to be associated with lower extrinsic motivation and with lacking motivation. The results from these various studies suggest that discrimination has a harmful effect on African American students' attitudes toward education.

Other studies provide additional information about how discrimination is related to negative attitudes toward education. Solorzano et al. (2000) examined how the racial climate of college affects African American students. Many of the students spoke about feeling invisible in the classroom and felt that their experiences were excluded, distorted, and stereotyped in the curriculum. Students also reported that faculty had low expectations even when there was evidence to the contrary, which contributed to increased students' sense of self-doubt. These situations caused some of the students to believe that they could not perform well academically; some even revealed that these kinds of situations drove them to drop classes, change majors, or even transfer schools. Such experiences with discrimination and oppression can lead to African

American students being distrustful of the education system and its benefits (Ogbu and Simons, 1998). Due to the widely documented effects of discrimination on African American students, it is vital to identify protective factors against the harmful effects of racial discrimination on their academic attitudes, particularly since these attitudes influence their decisions about persisting through college.

### **1.3 Racial Socialization**

African American parents have the task of preparing their children for discrimination in the broader society and this preparation can be applied to the educational setting. African American students' difficulties in the microsystem of the school context can be ameliorated with aid from the microsystem of the family, particularly parents. Racial socialization is one method through which individuals can be protected from the discrimination that they may face. The socialization from earlier years may be protective in the future, given that in the college setting parents may not be as accessible for support.

Hughes et al. (2006) define racial socialization as the way in which information, perspectives, and values about race and ethnicity are communicated by parents to their children (Hughes et al., 2006). Due to racism and discrimination, parents have the additional task of ensuring their children are psychologically healthy despite a society that seeks to devalue and demean them because of their race. Parents may explicitly and purposely prepare their children for the difficulties they may face in mainstream society. Racial socialization is also a dynamic process. Parents may give messages based on their expectations of how their children may be treated or based on experiences that their children are currently having. Communication about race may be initiated by the parents or the children. All are factors that influence the frequency

and the type of racial socialization messages given. A particularly relevant message for African American parents is preparation for bias.

#### **1.4 Preparation for Bias Racial Socialization Messages**

Preparation for bias refers to messages that emphasize alerting children to racial barriers and biases they may experience in the future (Hughes & Chen, 1997). Preparation for bias is a relatively common racial socialization message. Hughes and Chen (1997) examined several factors that predicted the racial socialization messages that parents transmit to their children. A majority of parents (69.4%) reported giving their children some form of preparation for bias messages (Hughes & Chen, 1997). Coard, Wallace, Stevenson, and Brotman (2004) added to the literature by conducting semi-structured interviews with African American female caregivers. They found four themes of racial socialization: racial achievement, preparation for bias, racial equality, and racial pride. All parents reported using racial socialization practices and 73% gave messages of preparation for bias. This is likely due to the fact that parents have to make their children aware of the discrimination they may face in the future or are currently experiencing. A longitudinal approach is advantageous because these messages may not have implications at the time they are given, but they can become important when discrimination does become an issue in the college setting. Consistent with the chronosystem approach, a longitudinal approach also takes into account the transition from high school to college. Research has consistently shown that more discrimination experiences are related to an increased frequency in preparation for bias messages (Bynum, Best, & Burton, 2007; Harris-Britt et al., 2007; Neblett et al., 2008; Stevenson & Arrington, 2009). This is likely because more discrimination experiences may require more frequent preparation or strategies to deal with the discrimination. Several scholars

have constructed measures of preparation for bias that aimed at determining what constitutes this type of message and understanding the relationship preparation for bias has with other outcomes.

Preparation for bias has been assessed with several different measures. Bowman and Howard (1985) conducted a study in which they asked participants what adults taught them about being Black and interacting with White people. One theme of responses referred to the emphasis of racial barriers and the protocol for dealing with them. Subthemes included awareness of racial barriers and blocked opportunities, social distance, and being adaptive (Bowman & Howard, 1985). Scholars created future measures of preparation for bias based on this work.

Hughes et al. (2006) conducted a literature review of racial socialization and provided various measures that aligned with their conceptualization of racial socialization and their proposed subcategories, including preparation for bias (Hughes et al., 2006). Three of these measures are Hughes and Chen's (1997) measure, the Racial Socialization Questionnaire-Teen (RSQ-T), and the proactive responses to discrimination subscale (Eccles, 1997; Frabutt, Walker, MacKinnon-Lewis, 2002). Hughes and Chen (1997) created a measure that has been used in several studies (Dotterer, McHale, & Crouter, 2009; Harris-Britt et al., 2007; Rivas-Drake, Hughes, & Way, 2009). The preparation for bias subscale included such messages as telling the child about unfair treatment due to race and needing to be better to get the same rewards. The measure has been demonstrated as reliable with Cronbach's alphas typically ranging from .84 to .87. Lesane-Brown et al. (2011) developed the Racial Socialization Questionnaire-Teen. The racial barriers subscale is very similar to the Hughes and Chen (1997) preparation for bias subscale, assessing almost identical messages. One difference is that the Hughes and Chen (1997) measure was developed for use with multiple racial groups (parents and children) and the

Racial Socialization Questionnaire-Teen was developed for use with specifically African Americans adolescents. The racial barriers subscale from the Racial Socialization Questionnaire-Teen is also not as reliable as the preparation for bias subscale by Hughes and Chen (1997) with Cronbach's alphas typically ranging from .63 to .70.

For the Maryland Adolescent Development in Context Study (MADICS; Eccles, 1997), the Parent Management Questionnaire was developed. The subscale for proactive responses to discrimination was used with parents and children. Based on the MADICS (Eccles, 1997) and a later study using the measure (Frabutt et al., 2002), the reliability of the measure has been demonstrated, with Cronbach's alphas ranging from .82 to .89. The reliability of the measure is on par with that of the Hughes and Chen (1997) and stronger than that of the Racial Socialization Questionnaire-Teen (Lesane-Brown et al., 2011). This measure is similar to other measures of preparation for bias because of its assessment of parental messages about discrimination and ways to deal with it. The measure is constructed in such a way that the awareness aspect is embedded within the strategies given for handling discrimination experiences and it also assesses strategies dealing with discrimination experiences that have already occurred. Frabutt et al. (2002) used this measure to assess racial socialization as it related to proactive responses to discrimination. They conducted a factor analysis that found that the items formed a unidimensional measure of proactive responses to discrimination. Although this measure has not been used as frequently as other preparation for bias measures, its reliability and alignment with preparation for bias suggest that this is an appropriate measure assessing the construct.

Preparation for bias seems to be a particularly important message for African Americans parents in terms of preparing for, or responding to, racism. They transmit more of these messages than parents from other ethnic groups (Hughes, 2003). This may stem from African



Americans' oppressive history in the United States. Due to their status and the long history of continued racial discrimination against African Americans, this is a very relevant message for parents to communicate to their children. This preparation can prove advantageous in the face of discrimination in the school context; therefore, it is important to examine how preparation for bias serves as a buffer against school based discrimination's impact on attitudes toward education.

#### ***1.4.1 Preparation for bias as a protective factor against racial discrimination***

Preparation for bias has been demonstrated as a protective factor against the impact of racial discrimination. Harris-Britt et al. (2007) examined racial socialization's role as a protective factor against the harmful effects of racial discrimination on self-esteem. Preparation for bias was found to serve a protective role, but this effect was curvilinear. There was a negative relationship between perceived discrimination and self-esteem at low levels and high levels of preparation for bias (Harris-Britt et al., 2007). Other studies have examined the protective role of preparation for bias for educational outcomes, but preparation for bias was not established as a protective factor (e.g., Dotterer et al., 2009; Wang & Huguley, 2012). These previous studies examined outcomes such as engagement, school attachment, and GPA, but not students' attitudes about the value of education and how well they expect to do in school across time. As such the current study would add to the literature by examining additional academic outcomes that have been found to be associated with educational attainment.

Although previous research has been unable to establish significant findings for preparation for bias and certain educational outcomes, there is some evidence that suggests the protective role preparation for bias can play in the context of school. Bynum, Burton, and Best (2007) found that African American students reported more psychological stress under

conditions of racism if they did not receive frequent preparation for bias messages. This study is relevant because the findings suggest that preparation for bias is a protective factor against racial discrimination for African American college students. The examination of profiles based on message frequency has also helped to illustrate preparation for bias as a protective factor.

Neblett et al. (2008) found that in profiles with moderate and high levels of preparation for bias, racial discrimination was unrelated to engaging in problem behaviors such as cheating on tests and skipping classes. Also, of participants who reported receiving high levels of discrimination, those who received higher levels of preparation for bias reported fewer problem behaviors.

Given the fact that preparation for bias, in some form, has been demonstrated to be protective of academic outcomes against racial discrimination, it is important to further assess this relationship with additional academic attitudes (educational value and educational expectations).

Students may be aware of discrimination and racial barriers to academic success, leading to them placing less value in education and having lower expectations for educational success or attainment. However, parents can provide their children with preparation for bias messages which may allow them to be better equipped to handle these barriers. Knowing to expect and navigate racial barriers and discrimination may help students to still see the value of education and expect to do well, despite the discrimination they may encounter. For example, Eccles et al. (2006) found that African American adolescents' anticipation of future discrimination was indirectly related to greater academic achievement via an increased value placed in education. The findings from these studies illustrate the protective role of preparation for bias messages against racial discrimination, particularly in the school context.

#### ***1.4.2 Preparation for bias and academic outcomes***

Aside from its protective role against racial discrimination in the school setting, research has illustrated how academic outcomes are directly influenced by preparation for bias. There are mixed findings for preparation with some suggesting negative impact on academic outcomes and some suggesting a positive relationship. For example, Smalls and Cooper (2012) examined racial barrier socialization (i.e., preparation for bias), private regard (views about their racial group), and how they were related with behavioral engagement and grades in African American adolescents. They found that for boys with low private regard, racial barrier socialization was related to lower grades. Smalls (2009) found that preparation for bias messages were negatively associated with task persistence for youth who perceived that their mothers were less engaged in parenting that promoted youth decision making.

While these findings support a negative relationship between preparation for bias and academic attitudes in certain situations, there is more evidence of the positive impact of preparation for bias on academic outcomes. Bowman and Howard (1985) found that children who received racial barrier messages reported better grades than those who did not receive any messages. This suggests that preparation for bias messages from parents facilitated better academic performance. Similarly, Wang and Huguley (2012) found that preparation for bias was related to more school identification and more engagement in learning over time. Additionally, Dotterer, Crouter, and McHale (2009) found that preparation for bias was related to higher school self-esteem. Friend, Fletcher, and Hunter (2011) found that preparation for bias was related to a higher GPA in boys. Neblett, Chavous, Nguyen, and Sellers (2009) conducted a longitudinal study that found that adolescents in the profile including high amounts of preparation for bias also reported more academic persistence and higher GPA than other profiles.

The studies that found a negative relationship were primarily cross sectional or had a narrower age range than studies that found a positive relationship. The longitudinal studies suggest that preparation for bias has positive influence on academic outcomes over time. Findings from these studies suggest that frequent preparation for bias messages can lead to high academic performance and positive academic attitudes.

### **1.5 Theoretical Framework**

One theoretical perspective that can be used in order to explain the process through which parents can protect their children from the harmful effects of racial discrimination on their academic attitudes is an ecological framework. Bronfenbrenner's (1986) ecological model places the individual at the core and illustrates how development is influenced at multiple levels (microsystem, mesosystem, exosystem, macrosystem, and chronosystem). The model can serve as a broad framework for understanding how phenomena experienced at different ecological levels can impact academic attitudes. It is also important because it is not just looking at the individual as the source of risk; it also posits that risk factors can be found at multiple levels. At the level of the macrosystem are the beliefs, customs, ideas, and values of the broader society. The exosystem consists of environments not directly related to the child, but that still exert some influence on the child. While these are broader, distal levels of influence, the mesosystem, microsystem, and the chronosystem are the levels of focus in this paper.

The microsystem consists of the child's direct interactions and relationships with their family, school, and neighborhood (Bronfenbrenner, 1986). This level of analysis is important because of the preparation for bias messages that are given within the context of the family. It is also important because the racial discrimination African Americans face in the school setting influences their attitudes toward education. For instance, according to Wigfield and Eccles

(2000), expectations and value placed in education directly influence performance and are impacted by personal experiences and socialization influences (Wigfield & Eccles, 2000). These socialization influences can come from the family in the form of preparation for bias. Personal experiences can include the racial discrimination that African Americans face in the school setting. Mickelson (1990), as well as Ogbu and Simons (1998), discuss how racial discrimination influences the expectations for success and the value placed on education. Mickelson (1990) describes how African American students have high aspirations for succeeding academically, but due to racial discrimination, their expectations for success are much lower. Ogbu and Simons (1998) posited that racial discrimination leads African Americans to be distrustful of the education system and to place less value in education, as supported by Caldwell's and Obasi's (2010) empirical study.

At a broader level, the mesosystem consists of the relationships between microsystems such as the family and school. Processes in different settings do not operate independently. Processes that occur in the school context may influence family practices and the reverse can be true. Racial discrimination experiences in the school could influence the kinds of messages that parents communicate to their children. The types of messages that parents communicate to their children could influence how they handle racial discrimination experiences. These two sets of processes may interact to influence students' attitudes toward education and subsequently their academic performance. It is important to note that Bronfenbrenner (1986) provides evidence that suggests that family processes may be more important than school influences in terms of academic development. This could provide support to the rationale that preparation for bias messages communicated by parents can buffer or lessen the impact of racial discrimination experiences in school on the academic attitudes of African American students.

The chronosystem refers to the changes in development over time in the environments that the person is in. One form of chronosystem involves a life transition such as college entry. Such a transition can be a direct cause for developmental change. The first year of college is a very critical time. It is important to examine college students, particularly during their transition from high school to college because this time is a time for adjustment to a new social and academic environment. Consistent with expectancy-value theory, such a change in their environment influences students' academic attitudes and it is important to account for previous experiences. These frameworks illustrate the need to identify buffers to the negative academic consequences of racial discrimination.

## **1.6 The Current Study**

Racial discrimination has been shown to have adverse effects on academic attitudes, particularly for college students (Reynolds et al., 2010; Neblett et al., 2006). As a result African American parents engage in racial socialization, with preparation for bias being a common type of message. While there is research examining racial discrimination's impact on the value placed in education and expectations for success, the same is not true for preparation for bias. Much of the research on preparation for bias and academic outcomes has examined outcomes such as grades and engagement in the classroom. It is important to look at expectations for academic success and the value placed in education because these attitudes can influence how well students may perform, how engaged they are in the classroom, and whether they persist. This study examined how preparation for bias is related to value placed in education and expectations of success.

Also, there is a large body of literature that has examined how preparation for bias protects psychological functioning. However, there exists a paucity of work on how preparation

for bias protects educational attitudes, particularly the value placed in education and expectations for educational success. This study will examine the protective role of preparation for bias against the adverse effects of discrimination on academic attitudes. In addition, much of the existing research in this area has utilized cross-sectional designs and samples from middle school or high school students. This study adds to the literature by using a longitudinal design to examine this relationship over time through middle school, high school and college, specifically how preparation for bias messages as reported by parents during middle school and reported by students during high school influence the effect of racial discrimination on educational value and expectations reported during college. Demographic characteristics such as gender, parent education level, and family income are factors that influence educational value and expectations, making it necessary to control for these variables. Higher parental education level and family income is related to higher expectations and value; research also suggests that girls have higher educational expectations (Lee et al., 2012; Wood et al., 2011).

Theoretical and empirical research suggests that other factors such as previous value placed in education also influence educational expectations and value, thus providing justification for considering these constructs as covariates as well. This study aimed to examine whether preparation for bias messages as reported during middle school and high school lessen the impact of racial discrimination on academic attitudes. The attitudes examined were students' educational expectations and the value they placed in education during college. Using longitudinal data from high school (Time 1) and college (Time 2), the current study sought to answer six questions.

### ***1.6.1 Research Question 1***

What is the relationship between racial discrimination in college and the value placed in education? Given past research (Neblett et al., 2006; Ogbu & Simons, 1998; Reynolds et al., 2010), it is hypothesized that greater perceptions of racial discrimination experiences will be related to less value placed in education.

### ***1.6.2 Research Question 2***

What is the relationship between racial discrimination in college and expectations for success? Given past research (Mickelson, 1990; Neblett et al., 2006; Reynolds et al., 2010), it is hypothesized that greater perceptions of racial discrimination experiences will be related to lower expectations for success.

### ***1.6.3 Research Question 3***

How is preparation for bias received in high school related to value placed in education during college? Past research has suggested that preparation for bias is related to positive academic attitudes (Bowman & Howard, 1985; Dotterer et al., 2009; Friend, Fletcher, & Hunter, 2011; Wang & Huguley, 2012). It is hypothesized that more frequent preparation for bias messages received during high school will be related to more value being placed in education during college.

### ***1.6.4 Research Question 4***

How is preparation for bias received in high school related to expectations for success? Given past findings (Bowman & Howard, 1985; Dotterer et al., 2009; Friend, Fletcher, & Hunter, 2011; Wang & Huguley, 2012), it is hypothesized that more frequent preparation for bias



messages received during high school will be related to higher educational expectations while students are in college.

#### ***1.6.5 Research Question 5***

Do preparation for bias messages in high school buffer the effect of racial discrimination on value placed in education during college? Based on previous research (Bynum et al., 2007; Neblett et al., 2008), it is hypothesized that preparation for bias messages will weaken the relationship between racial discrimination and value placed in education. At low levels of preparation for bias, racial discrimination will be associated with less value placed in education. At high levels of preparation for bias, racial discrimination will be associated with less value placed in education, but the relationship will be weaker in comparison to low levels of preparation for bias.

#### ***1.6.6 Research Question 6***

Do preparation for bias messages in high school buffer the effect of racial discrimination on expectations for success during college? Previous research suggests that preparation for bias serves as a protective factor (Bynum et al., 2007; Neblett et al., 2008). It is hypothesized that preparation for bias messages will weaken the relationship between racial discrimination and expectations for success. At low levels of preparation for bias, racial discrimination will be associated with lower expectations for success. At high levels of preparation for bias, racial discrimination will be associated with lower expectations for success, but the relationship will be weaker in comparison to low levels of preparation for bias.

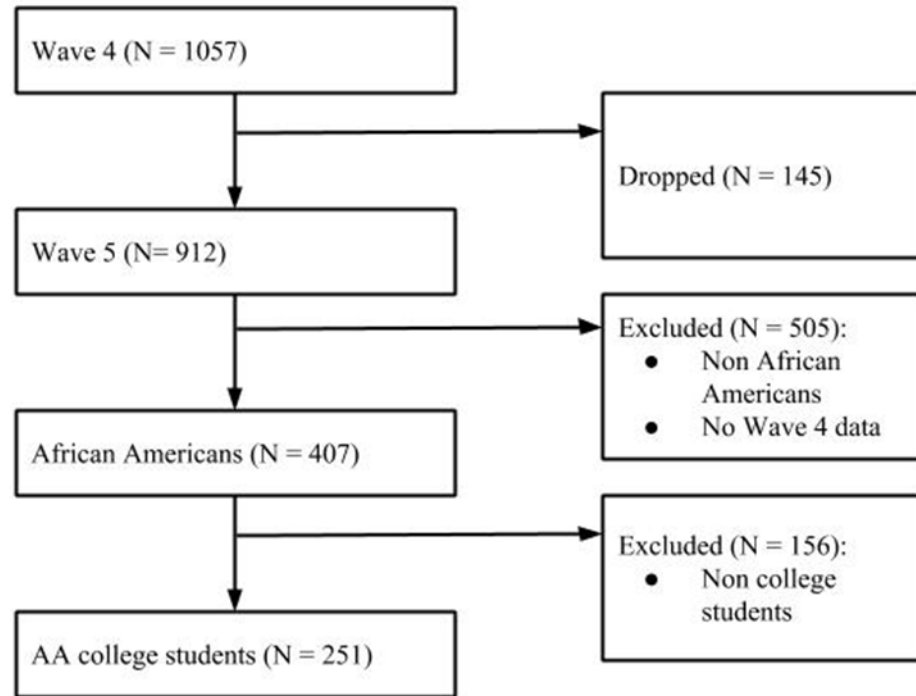
## 2 METHOD

### 2.1 Participants

Participants for the study were taken from a secondary data set of a larger longitudinal study on how context influences behavior and to identify successful pathways through adolescence, the Maryland Adolescent Development in Context Study (Eccles, 1997). Data was collected using face-to-face interviews, self-administered questionnaires, and telephone interviews. In this study, two waves of data were examined: Wave 4, when the participants were in the 11<sup>th</sup> grade and Wave 5, one year after they left high school. The study only includes those who participated in Wave 4, stated they were full-time students in college at the time of Wave 5, and self-identified as African American.

Figure 1 illustrates the inclusion and exclusion process for participants in the study. The original sample consisted of 1482 participants. At the time of Wave 4 there were 1057 participants, 71% of the original sample. At Wave 5, there were 912 participants, 62% of the original sample and 86% of the Wave 4 sample. Out of the Wave 5 sample, there were 407 African Americans who also had data from Wave 4. Of the African Americans, 156 were dropped from the analyses because they did not identify as full time college students. The final sample consisted of 251 African Americans (89 men, 159 women, 3 did not respond).

Highest level of parental education was available for the participants with the largest percentage being a high school degree (26.7%), followed by a Bachelor's or undergraduate degree (18.7%), Associate's degree (15.9%), some college (9.6%), Master's degree (8.8%), higher education that is not a college degree (technical or business degree) (8%), some high school (3.2%), and a doctoral degree (2.8%). Total family income was also collected with about half of the participants having a total family income over \$50,000 (51%).



**Figure 1** Consort diagram for attrition and retention of participants

## 2.2 Procedures

Data collection began while the adolescents were entering middle school. There were four waves of data collection while the adolescents were in middle school and high school. Two additional waves of data were collected 1 year after high school and 3 years after high school. Participants were initially recruited through mailed letters to their families during their 7<sup>th</sup> grade year. Families who wished to participate were asked to sign and return a consent form. Adolescents and their families participated in face-to-face interviews and completed self-administered questionnaires. The face-to-face interviews took approximately one hour and the

self-administered questionnaires approximately 30 minutes to complete. The first four waves were with participants and their families; the last two waves were with only the participants. Adolescent participants received financial compensation after each wave of data collection.

## **2.3 Measures**

### **2.3.1 Covariates**

Demographics of the adolescents and their families were used as statistical controls. Table 1 shows the study variables and the time points at which they were assessed. The measures included adolescents' gender (1 = *male*, 2 = *female*) and total family income as reported by the participants in Wave 5 (1 = < \$5000 to 7 = > \$50,000) and the primary caregiver's self-reported educational level (1 = *some high school* to 9 = *doctoral degree*) reported in Wave 1. Perceived importance of schooling was measured using 3 items that examined how important students thought that school was (e.g., "I have to do well in school if I want to be a success in life"). This measure has been used in previous studies that examined educational value as defined by expectancy-value theory. The measure was scored on a 5-point scale (1 = *Strongly Agree* to 5 = *Strongly Disagree*). Higher scores indicated greater importance and value placed in education (Lee, Hill, & Hawkins, 2012; Wood, Kurtz-Costes, & Copping, 2011).

### **2.3.2 Racial discrimination**

Racial discrimination during college was measured using 7 items ( $\alpha = .77$ ; Eccles, 1997) that assessed how much students believed that students of different races were treated equally at their school (e.g., "All students at my college are treated equally," "Instructors at my college pay attention to both Black and White students"). The responses were collected during Wave 5.

Racial discrimination was scored on a 5-point scale (1 = *Strongly Agree* to 5 = *Strongly Disagree*). Higher scores indicated greater perceptions of unfair treatment due to race.

**Table 1 Study Variables by Wave of Data Collection**

	Wave	Time
Gender	1	6 <sup>th</sup> grade
Parents' Educational Level	1	6 <sup>th</sup> grade
Total Family Income	1	6 <sup>th</sup> grade
Perceived Importance of Schooling	4	11 <sup>th</sup> grade
Preparation for Bias	4	11 <sup>th</sup> grade
Racial Discrimination	5	1 year after HS
Educational Expectations	5	1 year after HS
Educational Value	5	1 year after HS

### 2.3.3 *Preparation for bias*

Parental preparation for bias during high school was measured using the Proactive Responses to Discrimination scale (Eccles, 1997; Frabutt et al., 2002). Student responses were collected from Wave 4 of the data collection and were assessed with 6 items ( $\alpha = .80$ ). Students were asked how often their parents would suggest to them good ways of dealing racial discrimination they may face (e.g., “Do better than everyone else in school,” “Work harder than others,” “Not blame yourself when you experience discrimination”). Preparation for bias was scored on a 5-point scale (1 = *Never* to 5 = *Every day*). Higher scores indicated a higher frequency of these messages.

### 2.3.4 *Educational value*

Educational value during college was measured using 6 items ( $\alpha = .75$ ; Eccles, 1997) that assessed how valuable students thought that their education would be in the future (e.g., “I am disappointed by the education I am receiving”). Responses were collected during Wave 5.

Educational value was scored on a 5-point scale (1 = *Strongly Agree* to 5 = *Strongly Disagree*). Higher scores indicated more value placed in education.

### **2.3.5 Educational expectations**

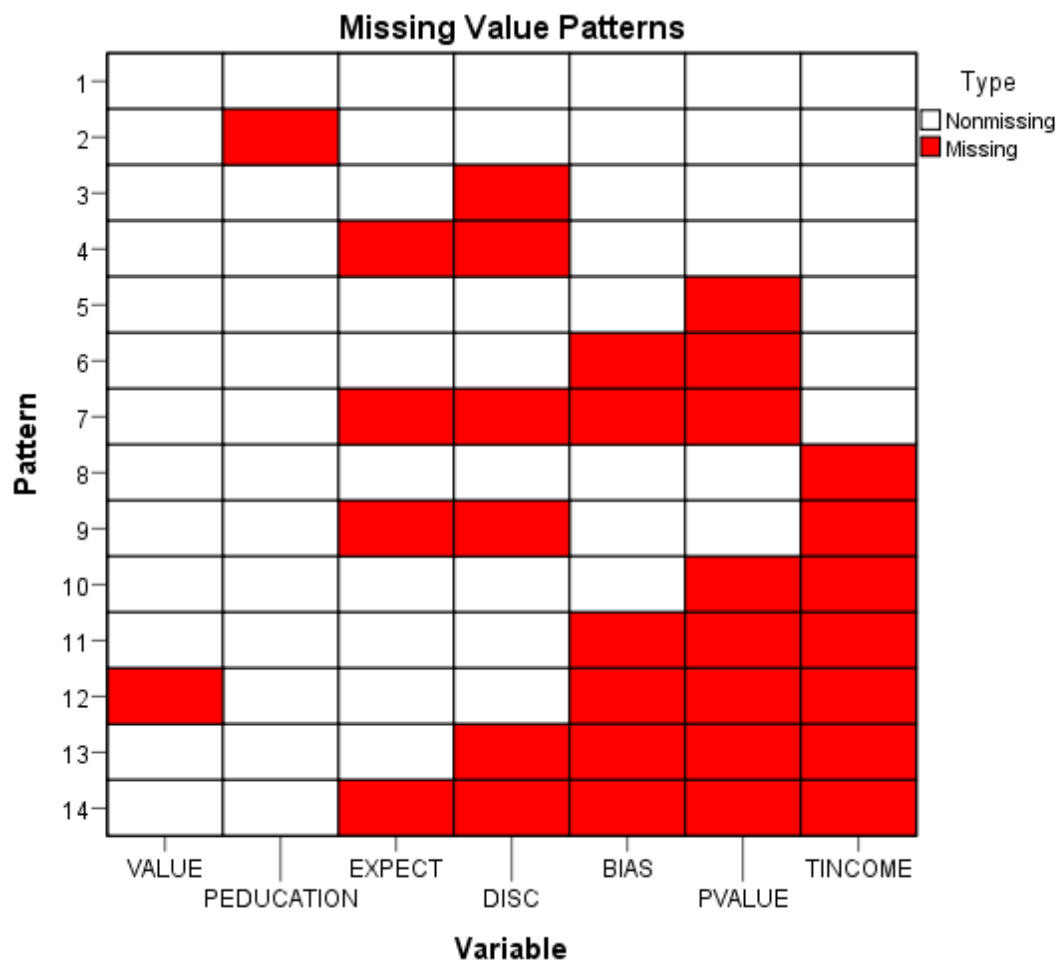
Educational expectations during college were measured with 6 items ( $\alpha = .86$ ; Eccles, 1997) that assessed how well students expected to perform academically in college (e.g. “I expect to do well in my college classes”). Responses were collected during Wave 5. Educational expectations were scored with a 5-point scale (1 = *Strongly Agree* to 5 = *Strongly Disagree*). Higher scores indicated higher expectations for performing well academically.

## **2.4 Analytic Strategy**

The original sample included individuals who participated in Wave 4 of data collection. Then Wave 5 data was matched to the individuals who participated in the previous wave. Cases in which individuals did not select African American as a race were then filtered out of the data. Finally, cases without an identification of being a full-time college student were filtered out as well. Cases with complete data made up 60.2% of the cases. Of all the values, based on cases and variables, 87.7% contained data Figure 2 illustrates the missing data patterns and figure 3 illustrates the frequency of missing data patterns. Missing data was accounted for by using multiple imputation. Multiple imputation creates a set of complete datasets and then averages the datasets to impute values where there is missing data. An advantage to multiple imputation is that the data is not biased and it works well for different missing data patterns (missing completely at random, missing at random, etc.). Data was imputed for all the variables of interest (covariates, predictor, moderator, outcomes). All missing data was coded as 99 and the imputation accounted for the missing data coding. Thirty imputed datasets were created and

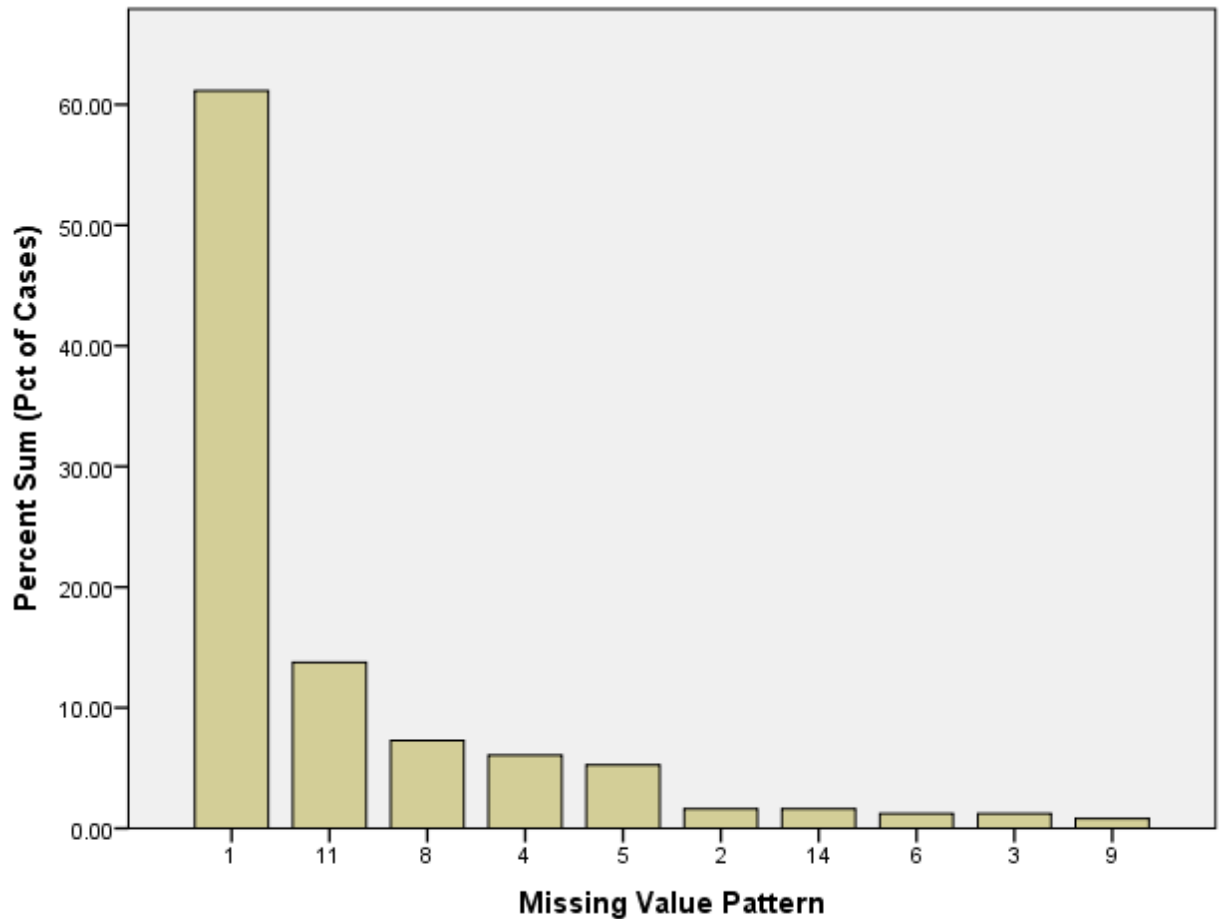
subsequent analyses were conducted with a pooled dataset based on the 30 imputed datasets. This allowed for analyses to be conducted with complete data for variables.

The study employed linear regression to test moderation. Several assumptions were tested for the regression analyses. Multicollinearity was checked by assessing the correlation of the variables in the model. Normality, linearity, and homoscedasticity were tested by graphing and checking a normal probability plot and a scatterplot. The software GPower was used to calculate the number of participants needed to detect a relationship at a power of 0.80 for each of the proposed relationships. The significance of the analyses will be tested at  $p < .05$  and the estimated effect sizes are 0.10 for racial discrimination and preparation for bias and 0.08 for the interaction of racial discrimination and preparation for bias. These effect sizes were chosen based on similar models analyzed in past research (Bynum, Burton, & Best, 2007; Harris-Britt et al., 2007; Neblett et al., 2006; Wang & Huguley, 2012). Based on initial power analyses, 81 participants were needed to detect a significant regression coefficient for racial discrimination or preparation for bias and 101 participants were needed to detect a significant regression coefficient for the interaction term.



**Figure 2** Missing value patterns





The 10 most frequently occurring patterns are shown in the chart.

**Figure 3** Frequency of missing value patterns

Analyses were conducted using the statistical software MPlus. Two separate sets of regression analyses to determine the main effects and interaction will be conducted for each of the outcomes (educational expectations and educational value). In the regression analyses, racial discrimination served as the predictor variable and preparation for bias was the moderator. Gender, parental education level, family income, and previous value served as covariates in the analyses. Racial discrimination and preparation for bias were each centered on their respective means in order to create an interpretable zero. This was done by subtracting the mean of each

variable from their respective scores. An interaction term was created from the centered variables by multiplying together the scores of the variables.

#### **2.4.1 *Educational value***

Two sets of regression analyses were conducted to determine the main effects for racial discrimination and preparation for bias and the interaction effect of the variables. Covariates were included in each of the regression analyses. To answer research questions 1 and 3, a regression analysis was conducted without the interaction term for racial discrimination and preparation for bias. To answer research question 1, racial discrimination was entered as a predictor in order to examine its main effect. To answer research question 3, preparation for bias was also entered in the model as a predictor variable in order to examine its main effect. To answer research question 5, the second analysis examined the moderating role of preparation for bias in the relationship between racial discrimination and educational value. This analysis included the interaction term with all other variables in the regression analysis. If the interaction term was significant, then simple slopes analysis would be conducted to further probe the interaction. For simple slope analysis, two separate regression equations are created using the moderator that is recalculated to be above or below the mean by 1 standard deviation. The standard deviation of preparation for bias is added or subtracted from the scores. One slope would be the relationship between racial discrimination and educational value at high levels of preparation for bias (+1 SD). The other slope would be the same relationship but at low levels of preparation for bias (-1 SD).

#### **2.4.2 *Educational expectations***

Two sets of regression analyses were conducted to determine the main effects for racial discrimination and preparation for bias and the interaction effect of the variables. Covariates

were included in each of the regression analyses. To answer research questions 2 and 4, a regression analysis was conducted with a model that did not include the interaction term of racial discrimination and preparation for bias. To answer research question 2, racial discrimination was entered as a predictor in order to examine its main effect. To answer research question 4, preparation for bias was also entered in the model as a predictor variable in order to examine its main effect. To answer research question 6, the second analysis examined the moderating role of preparation for bias in the relationship between racial discrimination and educational expectations. This model included the interaction term with all other variables in the regression analysis. If the interaction term was significant, then simple slopes analysis would be conducted to further probe the interaction. For simple slope analysis, two separate regression equations would be created using the moderator that is recalculated to be above or below the mean by 1 standard deviation. The standard deviation of preparation for bias is added or subtracted from the scores. One slope would be the relationship between racial discrimination and educational expectations at high levels of preparation for bias (+1 SD). The other slope would be the same relationship but at low levels of preparation for bias (-1 SD).

### 3 RESULTS

#### 3.1 Preliminary Analyses

In high school, participants on average placed a moderately high amount of value in education ( $M = 3.36$ ,  $SD = .62$ ). Participants had moderately high expectations ( $M = 4.07$ ,  $SD = .65$ ) and placed a moderately high amount of value in education ( $M = 4.12$ ,  $SD = .56$ ).

Participants on average reported that they disagreed that students were not treated equally due to race ( $M = 2.33$ ,  $SD = .61$ ). Participants reported a moderate frequency of preparation for bias ( $M = 3.11$ ,  $SD = 1.00$ ).

Table 2 illustrates the intercorrelations among the study variables. Total family income was weakly correlated with parental education level,  $r = .22$ ,  $p < .001$ . Family income was not significantly correlated with educational value and educational expectations,  $r = .02$ ,  $p > .05$ ;  $r = .02$ ,  $p > .05$ . Gender was also weakly correlated with educational value but not significantly correlated with educational expectations,  $r = .15$ ,  $p = .03$ ;  $r = .11$ ,  $p > .05$ . Educational value was weakly correlated with previous educational value,  $r = .18$ ,  $p < .05$ . Educational value was inversely and weakly related to racial discrimination,  $r = -.22$ ,  $p < .01$ . Educational expectations were moderately correlated with previous value placed in education,  $r = .27$ ,  $p < .001$ . Educational expectations and value placed in education were strongly related to one another,  $r = .52$ ,  $p < .001$ . Educational expectations were inversely and moderately related to racial discrimination,  $r = -.29$ ,  $p < .001$ . Students' reports of preparation for bias were weakly correlated with educational value and not significantly correlated with educational expectations,  $r = .19$ ,  $p < .01$ ;  $r = .09$ ,  $p > .05$ .

**Table 2 Intercorrelations of Study Variables**

	1	2	3	4	5	6	7	8
1. Gender								
2. Parents' Educational Level	-.07							
3. Total Family Income	-.09	.22***						
4. Perceived Importance of Schooling	-.02	.09	-.01					
5. Racial Discrimination	-.16*	.06	.04	.01				
6. Educational Value	.15*	-.01	.02	.18*	-.22**			
7. Educational Expectations	.11	.02	.02	.27***	-.29***	.52***		
8. Preparation for Bias	-.00	-.05	.01	.07	-.01	.19**	.09	

\* $p < .05$ , \*\*  $p < .01$ , \*\*\* $p < .001$

### 3.2 Main Effects of Racial Discrimination and Preparation for Bias

Table 3 illustrates the results of the model examining the main effects of racial discrimination and preparation for bias on educational value and educational expectations. Gender was a significant predictor of educational value,  $\beta = .12$ ,  $t = 1.98$ ,  $p < .05$ . Previous value placed in education was also a significant predictor,  $\beta = .18$ ,  $t = 2.65$ ,  $p < .01$ . The main effect of racial discrimination on educational value was significant and negative, supporting hypothesis 1,  $\beta = -.20$ ,  $t = -3.14$ ,  $p < .01$ . Preparation for bias had a significant main effect on educational value, supporting hypothesis 3,  $\beta = .17$ ,  $t = 2.61$ ,  $p < .01$ . Parents' education level, total family income, and previous educational expectations were also not significant predictors.

Previous value placed in education was a significant predictor of educational expectations,  $\beta = .27$ ,  $t = 4.40$ ,  $p < .001$ . The main effect of racial discrimination on educational expectations was significant and negative, which also supported hypothesis 2,  $\beta = -.28$ ,  $t = -4.57$ ,  $p < .001$ . Preparation for bias did not have a significant main effect on educational expectations, which did not support hypothesis 4. Parents' education level, total family income, and gender were also not significant predictors.

**Table 3 Model with Main Effects of Racial Discrimination and Preparation for Bias**

	Educational Value		Educational Expectations	
	$\beta$	SE	$\beta$	SE
Gender	.12*	.06	.08	.06
Parents' Educational Level	-.00	.06	.01	.06
Total Family Income	.04	.07	.05	.07
Perceived Importance of Schooling	.18**	.07	.27***	.06
Racial Discrimination	-.20**	.07	-.28***	.06
Preparation for Bias	.17**	.07	.07	.07

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

### 3.3 Interaction Effects

Table 4 illustrates the results of the model examining the interaction effect of racial discrimination and preparation for bias on educational value and educational expectations.

Gender was a significant predictor of educational value,  $\beta = .12$ ,  $t = 2.01$ ,  $p < .05$ . Perceived importance of schooling was also a significant predictor of educational value,  $\beta = .18$ ,  $t = 2.64$ ,  $p < .01$ . Racial discrimination was not a significant negative predictor of educational value. Preparation for bias was not a significant predictor of educational value. The interaction term had no significant effect on educational value, which did not support hypothesis 5.

Perceived importance of schooling was a significant predictor of educational expectations,  $\beta = .27$ ,  $t = 4.45$ ,  $p < .001$ . Racial discrimination was a significant negative predictor of educational expectations,  $\beta = -.50$ ,  $t = -2.22$ ,  $p < .05$ . Preparation for bias was not a significant predictor of educational expectations. The interaction term had no significant effect on educational expectations, which did not support hypothesis 6. Because there were no significant interactions, simple slope analyses were not conducted to probe the interactions.

**Table 4 Model with Conditional Effects and Interaction Effect of Racial Discrimination and Preparation for Bias**

	Educational Value		Educational Expectations	
	$\beta$	<i>SE</i>	$\beta$	<i>SE</i>
Gender	.12*	.06	.07	.06
Parents' Educational Level	-.00	.06	.01	.06
Total Family Income	.04	.07	.04	.07
Perceived Importance of Schooling	.18**	.07	.27***	.06
Racial Discrimination	-.13	.22	-.50*	.22
Preparation for Bias	.26	.26	-.19	.26
Racial Discrimination x Preparation for Bias	-.11	.34	.34	.33

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

## **4 DISCUSSION**

Racial discrimination is a reality that many African Americans have to face. This reality persists through their time in the education system, continuing on to college. With this fact in mind, it is important to identify protective factors that can buffer against the harmful effects of racial discrimination, particularly as it relates to academic attitudes such as expectations and the value placed in education. These outcomes are vital to maintain given their significant impact on the performance and persistence of African American college students. The purpose of the study was to determine the effects of racial discrimination and preparation for bias on academic attitudes of African Americans and to determine whether preparation for bias served as a protective factor against racial discrimination. For this purpose, six hypotheses were tested.

### **4.1 Racial Discrimination as a Main Effect**

Hypotheses 1 and 2 were each supported by the data. It was hypothesized that racial discrimination would be negatively related to educational expectations and educational value, respectively. Greater perceptions of unfair treatment due to race were related to African American students placing less value in their education. Greater perceptions of unfair treatment due to race were also related to lower educational expectations. These findings are consistent with theoretical frameworks that suggest the negative impact that racial discrimination has on academic attitudes. Mickelson (1990) posited that experiences with racial discrimination lead to African Americans having low expectations for academic success. Similarly, Ogbu and Simons (1998) posited that racial discrimination causes African American students to place less value in education. The findings also demonstrate the impact of ecological factors on individual development: racial discrimination at the level of the microsystem (college) negatively impacting the academic attitudes of African American college students.



The findings on the impact of racial discrimination are also consistent with previous empirical evidence. Reynolds et al. (2010) found that racial discrimination was related to having less motivation in African American college students. Solorzano et al. (2000) also found that experiences with racial discrimination led African American students to have lower expectations for success. There is also consistency with other studies that have examined the impact of racial discrimination on education expectations and the value placed in education during earlier developmental periods. Eccles et al. (2006) found that racial discrimination from both peers and teachers was related to less value placed in education. O'Hara et al. (2012) found that racial discrimination experienced during the 5<sup>th</sup> grade was related to lower expectations which in turn predicted a lower likelihood of entering college. The findings of the current study suggest that the negative impact of racial discrimination on education expectations and value placed in education that is observed during earlier developmental periods still holds true in college.

#### **4.2 Preparation for Bias as a Main Effect**

The third hypothesis was supported by the data. It was hypothesized that preparation for bias would be positively related to educational value. More frequent preparation for bias messages predicted African American college students placing more value in their education. These findings are consistent with expectancy-value theory (Eccles et al., 1983), particularly the proposed influence that socialization practices have on the value placed on education. It is also consistent with the ecological framework of Bronfenbrenner (1986) that posits the impact of the family microsystem on the individual as well as the chronosystem influences across both time and contexts. The findings suggest the positive effect that preparation for bias at the level of the microsystem (family) has on African American college students' academic attitudes across different contexts (going from family environment to college environment).

The findings are also consistent with previous empirical evidence suggesting the positive effect of preparation for bias on academic attitudes over a period of time. Wang and Huguley (2012) found in their longitudinal study that more frequent preparation for bias was related to more school identification and more cognitive engagement over time. Dotterer et al. (2009) found that more frequent preparation for bias was related to higher school self-esteem. The previous studies examined the relationship between preparation for bias and academic attitudes for African American middle school and high school students. The current study examined this relationship among African American college students. Findings from the current study suggest that receiving preparation for bias messages during high school can lead African American students to view their education as more valuable while they are in college. The increased value may lie in their perception of their education as being more difficult to attain because of the discrimination they may encounter. It could also be that education has a greater value in persisting in the face of racial discrimination. Such messages may help to prepare African American college students for a potentially harmful racial climate in college. Interestingly, preparation for bias was a significant predictor even while accounting for the previous value of education reported by participants during the 11<sup>th</sup> grade. The fact that preparation for bias predicted educational value in college above and beyond the influence of educational value in the 11<sup>th</sup> grade highlights the equal weight of cultural factors and general factors influencing educational attitudes.

Hypothesis 4 was not supported by the results. It was hypothesized that preparation for bias would be positively related to educational expectations. More frequent preparation for bias was not related to higher educational expectations. These findings are inconsistent with expectancy-value theory (Eccles et al., 1983), particularly the proposed influence that

socialization practices have on educational expectations. It also appears that preparation for bias given in the family context did not appear to have any bearing on the educational expectations of individuals.

The findings are also inconsistent with previous empirical studies that suggested the positive effect of preparation for bias on academic attitudes (Dotterer et al., 2009; Wang & Huguley, 2012). The lack of a significant relationship may be due to the sample. Participants in the sample on average had high expectations for academic success. It is likely there may be a ceiling effect for educational expectations. Lee et al. (2012) found that most individuals in the sample of their longitudinal study had consistently high expectations over time and that these individuals were most likely to graduate from high school. Similarly, Alexander et al. (2008) found that African Americans who attended college or graduated from college by the age of 22 were more likely to have high expectations that remained high from high school through college. In short, the sample may be overrepresented by individuals with already consistently high expectations which increased their likelihood of attending college in comparison to other individuals.

In addition to the already high expectations, there was little variation in these attitudes and there was a greater variety in the frequency of preparation for bias messages received by students. It appeared that regardless the frequency of preparation for bias messages that an individual received, they had high expectations. Also, at the item level, the most frequently endorsed message by participants was the message instructing the child to be a better person. Such a message may not have been as relevant for influencing expectations compared to a message telling children to work harder in school (see Appendix C). Related to the previous point, the least frequently endorsed message by participants was the message instructing the

child to do better than everyone else in school. The message that most explicitly referenced education was also the message least transmitted. It is likely that preparation for bias as reported was not a sufficient factor for explaining the differences in expectations among this particular sample of individuals.

### **4.3 Interaction of Racial Discrimination and Preparation for Bias**

Hypotheses 5 and 6 were not supported by the data. Preparation for bias did not weaken the negative effect of racial discrimination on the value placed in education. Preparation for bias also did not weaken the negative effect of racial discrimination on educational expectations. The findings are inconsistent with Bronfenbrenner's ecological framework and the proposed interaction of multiple microsystems at the level of the mesosystem. The data suggest that the microsystems of family and college did not interact to influence individuals' academic attitudes; specifically, preparation for bias in the family context did not serve as a protective factor against racial discrimination in the college context.

The findings are also inconsistent with previous empirical research that has suggested the protective role that preparation for bias has against racial discrimination for various outcomes. Harris-Britt et al. found that preparation for bias weakened the negative effect of racial discrimination on self-esteem. Bynum, Burton, and Best (2007) found that preparation for bias lessened the effect of racial discrimination on psychological stress for African American college students. There was much more variation in the reported frequency of preparation for bias messages than there was for racial discrimination or educational attitudes. Given this, it is possible that individuals who differ in the frequency of preparation for bias they received may not differ at all in the racial discrimination they received or in the education attitudes they hold.

Related to the previous point, it is also possible that the sample included individuals who were buffered from racial discrimination and were able to go to and remain in college. This would be consistent with previous research that suggests that racial discrimination serves as a barrier to enrolling into college (O'Hara et al., 2012). Preparation for bias may have been effective for weakening the negative effect of racial discrimination on their chances of attending college, but it may not have had the same impact on their academic attitudes once they made it to college. Another explanation could be that the preparation for bias as reported may be more protective against racial discrimination in interpersonal situations as opposed to the discrimination assessed in the study which includes both interpersonal and institutional experiences of discrimination (see Appendix D). A message instructing someone to try to get along with people may not be particularly useful in a situation in which the administration as a whole treats students unfairly due to their race. Messages focusing only on the interpersonal discrimination may leave someone unprepared for handling racial discrimination at an institutional level. Given these points, it may be that the protective nature of preparation for bias may not have been apparent for this particular sample (African American college students) or for these particular outcomes (educational expectations and educational value).

#### **4.4 Limitations and Future Directions**

There were several limitations in the study. All of the variables of interest were assessed using retrospective self-reported measures. With self-reporting, there is frequently the issue of respondent bias and social desirability. There is also the issue of participants not always remembering particular instances or possibly recalling things that may have occurred differently than reported or not occurred at all. Future studies can adjust for this by having multiple response sources for the variables and measures of interest. Approximately half of the

participants came from families in which the total income was over \$50,000 dollars. Individuals' experiences with discrimination may be different based on their income level and the socialization parents may give to their children could be different as well. All of the participants originated from the same area of the country. Different regions of the country may have varying racial climates, so future studies can use more geographically representative samples to account for these variations.

Aside from addressing the limitations of the current study, there are other future directions that can be taken in order to gain more information on academic attitudes. Future analyses could include indicators of performance or persistence such as GPA and whether an individual decided to attend college. Studies can examine how educational expectations and value influence these outcomes as well how they are impacted by other factors such as racial discrimination and preparation for bias. With this in mind, future studies can include individuals who did not attend college in their sample as well. The racial make-up of individuals' colleges can also be considered in future studies. It can be examined whether the relationship between racial discrimination and academic attitudes differs according to how diverse the institution is.

Given the incongruence of parent reports and child reports of preparation for bias and the fact that most studies only include either the parent or child report, future studies can examine whether the protective role of preparation for bias differs according to the reporter. If there is a discrepancy between parent reports and child reports of preparation for bias, then it warrants investigation as whether the effects that preparation for bias has can differ as well. Studies can also be expanded by considering socialization from different sources such as peers, siblings, and other adult figures besides the primary caregivers. While parents are the first and primary socializing agents for children, other sources are present and could become more prominent. In

addition to examining different sources, future studies can assess the protective role of different types of racial socialization messages (cultural socialization, egalitarian, etc.) against the effect of racial discrimination on educational expectations and educational value. Preparation for bias may not as effective as some other types of racial socialization messages or preparation for bias may work better in conjunction with some of the other messages.

#### **4.5 Significance and Contributions**

This work contributes to the existing literature in several ways. Using an ecological approach provides a framework for how different levels can influence African American students' development. Specifically, this research has the ability to demonstrate how the microsystems of college and family can influence academic attitudes in African American students. The research also adds to the literature by assessing this relationship longitudinally, from adolescence through emerging adulthood. Much of the literature focuses on the period of adolescence, but there is a significantly smaller body of literature on the period of emerging adulthood, specifically with college students. In addition, while much of the literature has examined academic attitudes such as motivation and engagement, not as much has examined the value that students place in education and how well they expect to do, particularly how these attitudes are impacted by racial discrimination and racial socialization practices. Another contribution is the examination of the role that preparation for bias has in promoting positive academic attitudes for African American college students. While much of the research has examined this relationship in adolescents at the time of middle school or high school, this study examines the relationship for college students. Additionally, this study illustrates the possible long-term benefit that preparation for bias has in relation to academic attitudes. This study adds to the literature by examining how preparation for bias could weaken the negative racial

discrimination has on these academic attitudes. The study also demonstrates that racial discrimination is still an issue for African American college students and continues to have a harmful impact on their academic attitudes.

These findings could have implications in both the school and family contexts. Given this study's findings of racial discrimination's negative effect on academic attitudes, additional research on the harmful effects of racial discrimination in the school context can help to inform educational practices appropriately suited for African American students. It can also spur schools and colleges to foster more open and supportive educational environments for African Americans. Additionally, it illustrates the importance in encouraging African American parents to provide messages in preparation for the future discrimination their children may experience in both the broader society and in the educational context. Whether it is specifically preparation for bias or another type of racial socialization message, these findings help to show why some kind of preparation or adjustment is needed in order for African American college students to succeed in the face of racial discrimination.



## REFERENCES

- Alexander, K., Bozick, R., & Entwisle, D. (2008). Warming up, cooling out, or holding steady? Persistence and change in educational expectations after high school. *Sociology of Education*, 81(4), 371–396. Retrieved from <http://soe.sagepub.com/content/81/4/371.short>
- Aud, S., Fox, M. A., & Kewal Ramani, A. (2010). Status and Trends in the Education of Racial and Ethnic Groups. NCES 2010-015. *National Center for Education Statistics*.
- Bowman, P. J. & Howard, C. (1985). Race-related socialization, motivation, and academic achievement: A study of Black youths in three-generation families. *Journal of the American Academy of Child Psychiatry*, 24, 134 – 141.
- Bronfenbrenner, U. (1986). Ecology of the family as a context for human development: Research perspectives. *Developmental Psychology*, 22 (6), 723 – 742.
- Brown, D. L. & Tylka, T. L. (2011). Racial discrimination and resilience in African American young adults: Examining racial socialization as a moderator. *Journal of Black Psychology*, 37 (3), 259 – 285.
- Bynum, M. S., Burton, E. T., & Best, C. (2007). Racism experiences and psychological functioning in African American college freshmen: Is racial socialization a buffer? *Cultural Diversity and Ethnic Minority Psychology*, 13, 64 – 71.
- Caldwell, T. & Obasi, E. M. Academic performance in African American undergraduates: Effects of cultural mistrust, educational value, and achievement motivation. *Journal of Career Development*, 36, 348 – 369.
- Coard, S. I., Wallace, S. A., Stevenson, H. C., & Brotman, L. M. (2004). Towards culturally relevant preventive interventions: The consideration of racial socialization in parent

- training with African American families. *Journal of Child and Family Studies*, 13(3), 277 – 293.
- Condrón, D. J. & Roscigno, V. T. (2003). Disparities within: Unequal spending and achievement in an urban school district. *Sociology of Education*, 76, 18 – 36.
- Dotterer, A. M., McHale, S. M., & Crouter, A. C. (2009). Sociocultural factors and school engagement among African American youth: The roles of racial discrimination, racial socialization, and ethnic identity. *Applied Developmental Science*, 13 (2), 61 – 73.
- Eccles, J. S. (1997). *MADICS study of adolescent development in multiple contexts, 1991 – 1998*. Retrieved from <http://thedataharvard.edu/dvn/>
- Eccles, J. S., Adler, T. F., Futterman, R., Goff, S. B., Kaczala, C. M., Meece, J. L., & Midgley, C. (1983). Expectancies, values, and academic behaviors. In J. T. Spence (Ed.), *Achievement and achievement motivation* (pp. 75 – 146). San Francisco, CA: Freeman.
- Eccles, J. S., Wong, C. A., & Peck, S. C. (2006). Ethnicity as a social context for the development of African-American adolescents. *Journal of School Psychology*, 44, 407 – 426.
- Flores, A. (2007). Examining disparities in mathematics education: Achievement gap or opportunity gap? *The High School Journal*, 29 – 42.
- Friend, C. A., Hunter, A. G., & Fletcher, A. C. (2011). Parental racial socialization and the academic achievement of African American children: A cultural-ecological approach. *Journal of African American Studies*, 15(1), 40-57.
- Harris-Britt, A., Valrie, C. R., Kurtz-Costes, B., & Rowley, S. J. (2007). Perceived racial discrimination and self-esteem in African American youth: Racial socialization as a protective factor. *J Res Adolesc*, 17 (4), 669 – 682.

- Howard, T. C. (2003). "A tug of war for our minds": African American high school students' perceptions of their academic identities and college aspirations. *The High School Journal*, 87, 4 – 17.
- Hughes, D. Correlates of African American and Latino parents' messages to children about ethnicity and race: A comparative study of racial socialization. *American Journal of Community Psychology*, 31, 15 – 33.
- Hughes, D. & Chen, L. (1997). When and what parents tell children about race: An examination of race-related socialization among African American families. *Applied Developmental Science*, 1, 200 – 214.
- Hughes, D., Rodriguez, J., Smith, E. P., Johnson, D. J., Stevenson, H. C., & Spicer, P. (2006). Parents' ethnic-racial socialization practices: A review of research and directions for future study. *Developmental Psychology*, 42 (5), 747 – 770.
- Johnson, D. R., Wasserman, T. H., Yildirim, N., & Yonai, B. A. (2014). Examining the effects of stress and campus climate on the persistence of students of color and White students: An application of Bean and Eaton's psychological model of retention. *Research in Higher Education*, 55 (1), 75 – 100.
- Lee, J. O., Hill, K. G., & Hawkins, J. D. (2012). The role of educational aspirations and expectations in the discontinuity of intergenerational low-income status. *Social Work Research*, 141 – 151.
- Lesane-Brown, C. L., Scottham, K. M., Nguyen, H. X., & Sellers, R. M. (2011). The Racial Socialization Questionnaire-Teen (RSQ-T): A new measure for use with African American adolescents. Unpublished manuscript.

- Mickelson, R. A. (1990). The attitude-achievement paradox among Black adolescents. *Sociology of Education*, 63(1), 44 – 61.
- Neblett, E.W., Chavous, T. M., Nguyen, H. X., & Sellers, R. M. (2009). “Say it loud – I’m Black and I’m proud”: Parents’ messages about race, racial discrimination, and academic achievement in African American boys. *The Journal of Negro Education* 78 (3), 246 – 259.
- Neblett, E. W., Philip, C. L., Cogburn, C. D., & Sellers, R. M. (2006). African American adolescents’ discrimination experiences and academic achievement: Racial socialization as a cultural compensatory and protective factor. *Journal of Black Psychology*, 32 (2), 199 – 218.
- Neblett, E. W., White, R. L., Ford, K. R., Nguyen, H. X., & Sellers, R. M. (2008). Patterns of racial socialization and psychological adjustment: Can parental communications about race reduce the impact of racial discrimination? *Journal of Research on Adolescence*, 18 (3), 477 – 515.
- O’Hara, R. E., Gibbons, F. X., Weng, C., Gerrard, M., & Simons, R. L. (2012). Perceived racial discrimination as a barrier to college enrollment for African Americans. *Personality and Social Psychology Bulletin*, 38 (1), 77 – 89.
- O’Sullivan, R., Mugglestone, K., & Allison, T. (2014). Closing the race gap: Alleviating young African American unemployment through education.
- Ogbu, J. U. & Simons, H. D. (1998). Voluntary and involuntary minorities: A cultural-ecological theory of school performance with some implications for education. *Anthropology & Education Quarterly*, 29 (2), 155 – 188.

- Reynolds, A. L., Sneva, J. N., & Beehler, G. P. (2010). The influence of racism-related stress on the academic motivation of Black and Latino/a students. *Journal of College Student Development, 51*, 135 – 149.
- Rigali-Oiler, M. & Kurpius, S. R. (2013). Promoting academic persistence among racial/ethnic minority and European American freshman and sophomore undergraduates: Implications for college counselors. *Journal of College Counseling, 16*, 198 – 212.
- Rivas-Drake, D., Hughes, D., & Way, N. (2009). A preliminary analysis of associations among ethnic-racial socialization, ethnic discrimination, and ethnic identity among urban sixth graders. *Journal of Research on Adolescence, 19* (3), 558 – 584.
- Schott Foundation for Public Education. (2010). Yes we can: The Schott 50 state report on public education and Black males. Cambridge, MA: The Schott Foundation for Public Education.
- Smalls, C. (2009). African American adolescent engagement in the classroom and beyond: The roles of mother's racial socialization and democratic-involved parenting. *Journal of Youth and Adolescence, 38*(2), 204 – 213.
- Smalls, C. & Cooper, S. M. (2012). Racial group regard, barrier socialization, and African American adolescents' engagement: Patterns and processes by gender. *Journal of Adolescence, 35* (4), 887 – 897.
- Solorzano, D., Ceja, M., & Yosso, T. (2000). Critical race theory, racial microaggressions, and campus racial climate: The experiences of African American college students. *The Journal of Negro Education, 69*, 60 – 73.

- Stevenson, H. C. & Arrington, E. G. (2009). Racial/ethnic socialization mediates perceived racism and the racial identity of African American adolescents. *Cultural Diversity and Ethnic Minority Psychology, 15* (2), 125 – 136.
- Teale, W. H., Paciga, K. A., & Hoffman, J. L. (2007). Beginning reading instruction in urban schools: The curriculum gap ensures a continuing achievement gap. *The Reading Teacher, 61*, 344 – 348.
- Thomas, O. N., Caldwell, C. H., Faison, N., & Jackson, J. S. (2009). Promoting academic achievement: The role of racial identity in buffering perceptions of teacher discrimination on academic achievement among African American and Caribbean Black adolescents. *Journal of Educational Psychology, 101* (2), 420 – 431.
- Wang, M. & Huguley, J. P. (2012). Parental racial socialization as a moderator of the effects of racial discrimination on educational success among African American adolescents. *Child Development, 83*(5), 1716 – 1731.
- Wei, M., Ku, T., & Liao, K. Y. (2011). Minority stress and college persistence attitudes among African American, Asian American, and Latino students: Perception of university environment as a mediator. *Cultural Diversity and Ethnic Minority Psychology, 17* (2), 195 – 203.
- Wigfield, A. & Eccles, J. S. (2000). Expectancy-value theory of achievement motivation. *Contemporary Educational Psychology, 25*, 68 – 81.
- Wood, D., Kurtz-Costes, B., & Copping, K. E. (2011). Gender differences in motivational pathways to college for middle class African American youths. *Developmental Psychology, 47* (4), 961 – 968.

Yeung, W. J. & Conley, D. (2008). Black – White achievement gap and family wealth. *Child Development*, 79, 303 – 324.

## APPENDICES

### Appendix A: Demographic Information

1. What is your sex? (Covariate)

- 1 = Male
- 2 = Female

2. Total household income? (Covariate)

- 1 = < \$5,000
- 2 = \$5,000-\$9,999
- 3 = \$10,000-\$19,999
- 4 = \$20,000-\$29,999
- 5 = \$30,000-\$39,999
- 6 = \$40,000-\$49,999
- 7 = > \$50,000

3. Are you a full time college student?

4. Describe your racial or ethnic background.

5. Highest grade you completed. (Parent report; Covariate)

- 1 = Some high school
- 2 = High school
- 3 = Some college
- 4 = Associate's degree
- 5 = Higher education not college degree (technical or business degree)
- 6 = Bachelor's or undergraduate degree
- 7 = Some graduate school
- 8 = Master's degree
- 9 = Doctoral degree (J.D., Ph.D., M.D., etc.)

6. Did you get a HS diploma or GED?



**Appendix B: Perceived Importance of Schooling**

1 = Strongly agree

2 = Agree

3 = Neither agree nor disagree

4 = Disagree

5 = Strongly disagree

1. I have to do well in school if I want to be a success in life (R).
2. Schooling is not so important for kids like me.
3. Getting a good education is the best way to get ahead in life for the kids in my neighborhood (R).

## **Appendix C: Proactive Responses to Discrimination**

How often do your parent(s) suggest that good ways to deal with racial discrimination are to...

1 = Never

2 = A couple times each year

3 = A couple times each month

4 = Once or twice each week

5 = Every day

1. Do better than everyone else in school?
2. Have faith in God?
3. Do your best and be a good person?
4. Not blame yourself when you experience racial discrimination?
5. Try hard to get along with people?
6. Stand up and demand your rights?

**Appendix D: Equal Treatment of the Races at College**

1 = Strongly agree

2 = Agree

3 = Neither agree nor disagree

4 = Disagree

5 = Strongly disagree

1. All students at my college are treated equally.
2. I don't know of any race that gets special treatment at my college.
3. The administration treats students of all races at my college fairly.
4. Instructors treat me badly because of my race. (R)
5. Instructors at my college pay attention to both Black and White students.
6. Each student at my college has an equal chance to get into the most important school organizations.
7. You have to be a particular race to get any privileges at my college. (R)

**Appendix E: Youth's Perception of the Value of Education**

1 = Strongly agree

2 = Agree

3 = Neither agree nor disagree

4 = Disagree

5 = Strongly disagree

1. My education is giving me the basic academic skills I need. (R)
2. My education is providing me with the basic job-finding skills I need. (R)
3. I am disappointed by the education I am receiving.
4. My education will help me get the job I want. (R)
5. My education will help me succeed in my job. (R)
6. My education is teaching me how to deal with bureaucracies (institutions). (R)

**Appendix F: Youth's Expectation to Perform Well Academically**

1 = Strongly agree

2 = Agree

3 = Neither agree nor disagree

4 = Disagree

5 = Strongly disagree

1. My professors think I am a good student. (R)
2. I expect to do well in my college classes. (R)
3. I believe I will receive excellent grades in my classes. (R)
4. I am confident that I can do an excellent job on the assignments and tests in my courses.  
(R)
5. I am certain I can master the skills being taught in my college classes. (R)
6. Considering the difficulty of my courses, the teacher, and my skills, I think I will do well  
in my college courses. (R)